

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims, in the application.

Claim 1 (canceled)

Claim 2 (currently amended): A method for running a plurality of tests to obtain electrophysiological data, said method comprising the steps of:

(a) providing a plurality of recording stations, each of said recording stations containing at least one test subject;

(b) introducing at least one test material into a first one of said plurality of recording stations, wherein a movable applicator introduces said at least one test material of step (b) directly into said first one of said plurality of recording stations, wherein said movable applicator is automated;

(c) introducing at least one test material into a second one of said plurality of recording stations, wherein a movable applicator introduces said at least one test material of step (c) directly into said second one of said plurality of recording stations, wherein said movable applicator is automated; and

(d) collecting said electrophysiological data from each of said plurality of tests, wherein each of said recording stations comprises:

(1) a flowcell having a channel or a chamber formed therein for said at least one test subject, said channel or said chamber containing said at least one test subject; and

(2) means for measuring the electrical response of said test subject to said at least one test material.

Claim 3 (previously presented): The method of claim 2, wherein each of said recording stations further includes means for controlling the electrical environment of said test subject.

Claim 4 (currently amended): The method of claim 2, wherein ~~fluid streams introduce said at least one test materials~~ material is introduced to said channel or said chamber of said flowcell by means of a liquid.

Claim 5 (canceled)

Claim 6 (canceled)

Claim 7 (previously presented): The method of claim 2, wherein said plurality of tests are run with the aid of a control system.

Claim 8 (original): The method of claim 7, wherein said control system is capable of carrying out at least one of:

- (a) scheduling;
- (b) recording data;
- (c) altering at least one parameter during a run;
- (d) storing data;
- (e) analyzing data.

Claim 9 (original): The method of claim 8, wherein said at least one parameter is selected from the group consisting of flow rate of test material, start time of test material application, stop time of test material application, duration of introduction of test material, recovery period of test subject, name of control material, concentration of control material, control repetition interval, digital sampling rate, temperature of said test subject, and electrophysiological holding potential.

Claim 10 (original): The method of claim 8, wherein said control system identifies the condition of said test subject.

Claim 11 (cancelled):

Claim 12 (currently amended): An apparatus for capable of running a plurality of tests concurrently to obtain electrophysiological data, said apparatus comprising:

- (a) a plurality of recording stations for holding a plurality of test subjects, at least one test subject per recording station;
- (b) a movable applicator for dispensing a test material directly into a recording station; and
- (c) a control system (1) for controlling said (a) plurality of recording stations and said (b) movable applicator and (2) for collecting said electrophysiological data from said plurality of tests, wherein each of said recording stations further includes a set of electrodes for monitoring and controlling the electrical environment of said test subject.

Claim 13 (original): The apparatus of claim 12, wherein each of said recording stations further includes elements for manipulating said electrodes.

Claim 14 (previously presented): The apparatus of claim 12, further including means for analyzing data.

Claim 15 (canceled)

Claim 16 (previously presented): The apparatus of claim 12, further including means for storing data.

Claim 17 (previously presented): The apparatus of claim 12, wherein said apparatus further includes a wash station for washing said movable applicator.

Claim 18 (previously presented): The apparatus of claim 12, wherein each of said recording stations further includes means for washing said test subject.

Claim 19 (previously presented): The apparatus of claim 17, wherein said wash station for washing said movable applicator is capable of washing the inside of said movable applicator, the outside of said movable applicator, or both the inside and outside of said movable applicator.

Claim 20 (previously presented): The apparatus of claim 12, further comprising means for processing signals.

Claim 21 (original): The apparatus of claim 20, wherein said signal processing means is capable of monitoring at least one electrical parameter.

Claim 22 (original): The apparatus of claim 20, wherein said signal processing means is capable of converting an analog signal to a digital signal.

Claim 23 (previously presented): The apparatus of claim 12, wherein said control system comprises a computer.

Claim 24 (previously presented): The apparatus of claim 12, wherein each of said recording stations comprises:

- (a) a chamber for holding said test subject;
- (b) a set of electrodes; and
- (c) elements for manipulating said electrodes

Claim 25 (original): The apparatus of claim 24, wherein each of said recording stations further includes a liquid level controller to control the level of liquid in said chamber.

Claim 26 (previously presented): The apparatus of claim 24, wherein each of said recording stations further includes holders for said electrodes.

Claim 27 (original): The apparatus of claim 24, wherein each of said recording stations further includes an element for preventing movement of said test subject.

Claim 28 (canceled)

Claim 29 (previously presented): The apparatus of claim 12, wherein said movable applicator includes:

- (a) means for reducing carryover; and
- (b) means for allowing air to escape.

Claim 30 (currently amended): The apparatus of claim 12, wherein said movable applicator is capable of being adjusted with respect to position.

Claim 31 (canceled)

Claim 32 (canceled)

Claim 33 (previously presented): The apparatus of claim 24, further including means for washing said chamber of said recording station.

Claim 34 (original): The apparatus of claim 33, wherein said means for washing said chamber comprises a perfusion system.

Claim 35 (previously presented): The method of claim 2, wherein said plurality of tests is run in sequence.

Claim 36 (previously presented): The method of claim 2, wherein said plurality of tests is run concurrently.